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Geography of Alabama.

By J. L. M. Curry



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GEOGRAPHY OF ALABAMA.

By J. L. M. CUREY, LL. D.,

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PHYSICAL FEATURES.

Position and Extent. In what part of the United States is Alabama? Between what degrees of longitude does it lie; between what degrees of latitude? By what states is it bordered? With the scale of miles, find its extreme length from north to south; find approximately its average breadth. The area of Alabama is 52,250 square miles, 710 of which are water surface.

Surface. Neither as to geology, climate, productions, nor as to surface can the state be divided into well-defined parts. Different regions are not separated by sharply drawn lines, but merge into one another, often by imperceptible gradations. As each shades into the other, sometimes the same sections of land will be agricultural, mineral, and timber-producing.

The northern part of the state, which embraces a portion of the Cumberland plateau and ridges to the east, is hilly and uneven, although its elevations do not exceed 2000 feet above the sea level. The Cumberland plateau consists of a broad tableland, and is bordered on the east by a series of long, straight, and parallel ridges, the first being the Raccoon and Sand mountains. Still farther east are Lookout Mountain and a number of other ridges.

The middle section consists of a region of foothills extending into the rolling prairies, alluvial valleys, and pine barrens. The central part is very fertile and is known as the "Black Belt." The falls, or rapids, in the streams of this section afford the best water power in the state.

The southern part of the state is a low plain, sloping gradually to the Gulf of Mexico, and is nowhere more than 400 feet above the sea level.

Drainage. In extent and value the water lines are hardly surpassed by those of any state, and they drain every section. Besides the navigable rivers, giving an inland steam navigation of over 2000 miles, other streams penetrate every county and nearly every neighborhood. There are four principal drainage basins in Alabama: those of (1) the Mobile River and its branches, the Alabama and Tombigbee; (2) the Tennessee; (3) the Chattahoochee; (4) the Conecuh and Choctawhatchee.

Mobile River is formed by the union of the Alabama and Tombigbee, which themselves have important tributaries; and, although the Mobile is but 44 miles long, its deep, broad channels and bordering bayons carry the drainage of almost three fourths of the state to Mobile Bay.

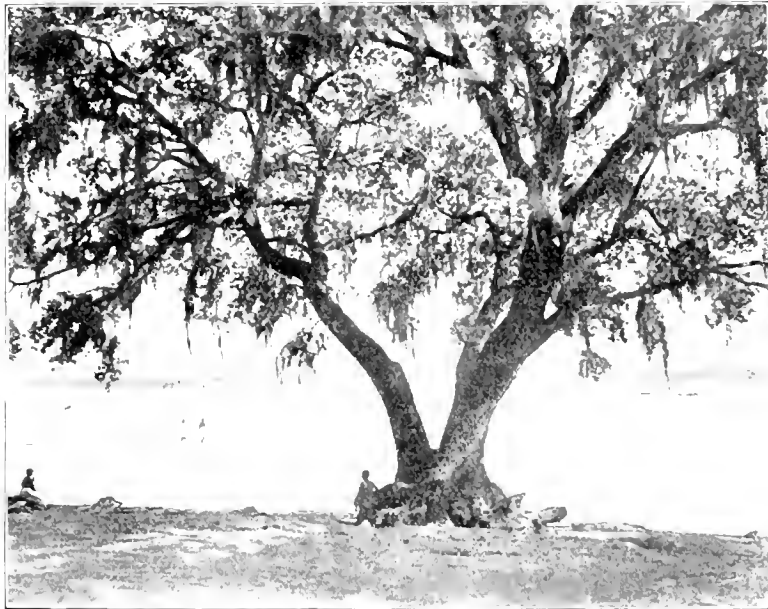
Mobile Bay is the deepest roadstead and one of the best harbors on the Gulf coast. It is 30 miles long, and has an average width of from 12 to 20 miles. A ship channel from the lower bay has been excavated, giving a depth of more than 20 feet. The largest vessels can enter the roadstead 27 miles below Mobile, and vessels of heavy draught can reach the city wharfs.

The Alabama River is formed by the junction of the Coosa and the Tallapoosa, and flows through or borders eight of the best planting counties, besides being accessible, by the aid of short railway lines, to the mineral regions. It is navigable throughout the year. The Cahaba is another important tributary of the Alabama, cutting its way through the deposits of coal and iron in Shelby and Bibb counties. At Centerville, on this tributary, at Wetumpka, on the Coosa, and at Tallas-

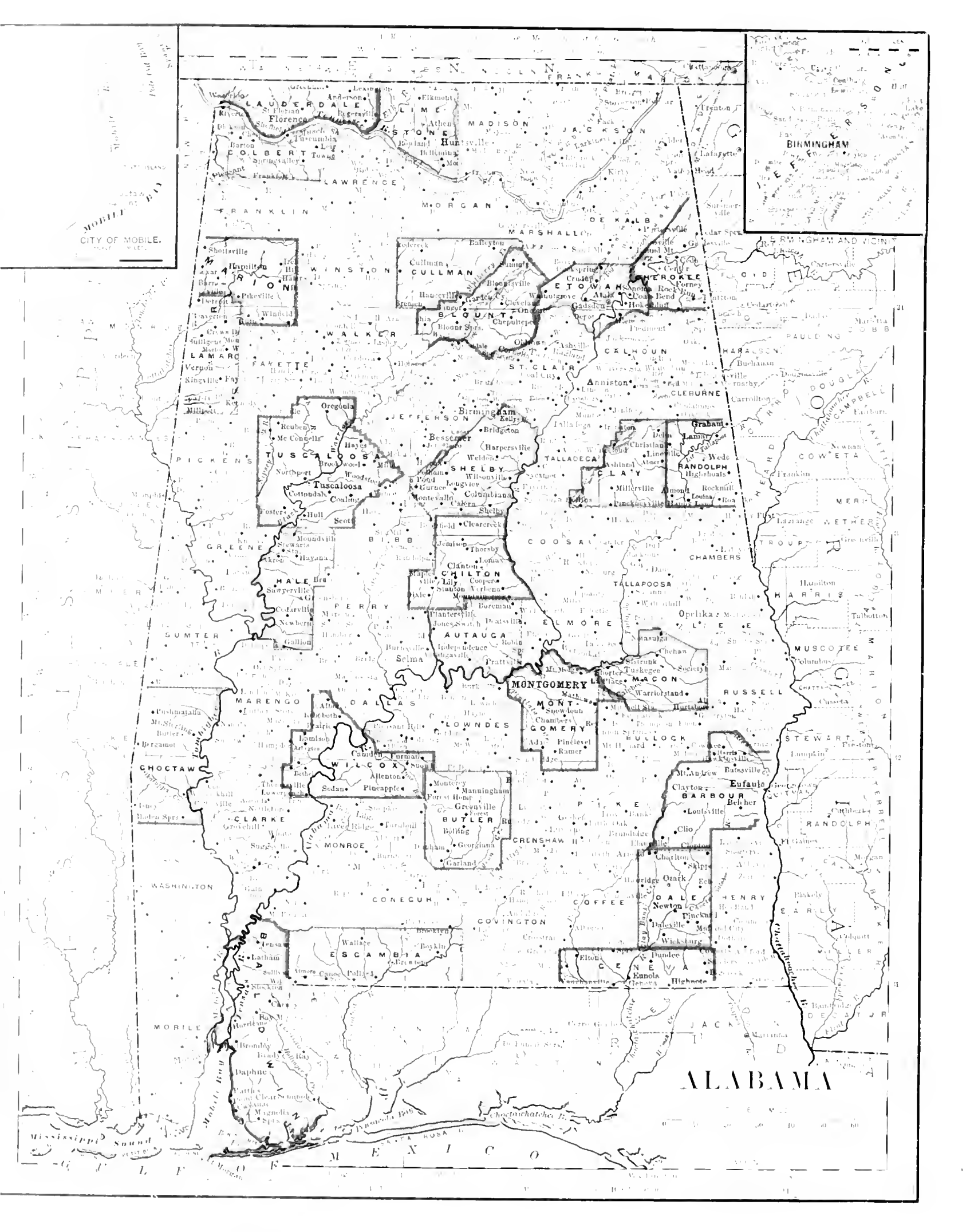
see, on the historic Tallapoosa, these streams leave the elevated foothill region by a series of cascades, which interrupt navigation, but afford excellent water powers. The Coosa again becomes navigable between Greensport and Rome, Ga. The first steamboat on these waters was launched at Greensport in 1845. The Federal government is clearing away the natural hindrances.

The Tombigbee River flows in Alabama for 319 miles of its course. Within the state it is navigable. Its most important tributaries are the Black Warrior and Sipsey rivers. The Black Warrior is navigable to Tuscaloosa. The locks above being completed, water communication has been opened between the coal fields and tide water, and barges, laden with coal from the Warrior and its tributaries, can be floated to the Gulf.

The Tennessee River, in Tennessee, occupies a valley east of the ridge of Raccoon Mountain; but, near Chattanooga, it breaks through a valley west of this ridge, which it follows to Guntersville, where it turns westward and cuts through the Cumberland plateau, emerging therefrom, after a tortuous course, just above Florence, in a series of



View of Mobile Bay.



rapids called Muscle Shoals. These formerly obstructed navigation, but have been so improved by locks and canals that the Tennessee is now navigable throughout its length.

The Chattahoochee River forms, with its western bank, about half the eastern boundary of the state. It is navigable to Columbus, Ga.

The Conecuh and Choctawhatchee rivers, with their tributaries, are not navigable by vessels, but are used by lumbermen for floating logs from the pineries.

Soil. The soils are produced by the decay of the surface rock, and vary in fertility from the thinnest sandy land to the richest alluvial. On the mountains they are sandy and not of remarkable fertility; in the "coves" and mountain valleys, a rich, calcareous soil predominates. The prairies have a fine black soil of great depth and fertility. The southern part of the state has a more sandy soil. It is claimed that a wall might be built around Alabama, "leaving open only her seaports for foreign exports, and the state could live well on her native products and manufactures, and become a mine of wealth from the shipment abroad of her agricultural, mineral, and manufactured products."

Climate. There are no extremes of heat and cold, and few unfavorable hygienic conditions, and the climate is generally healthful and pleasant. The influence of the mountains, cool breezes from the Gulf, resinous atmosphere, and streams of purest water combine to make residence and labor possible and convenient during every month of the year.

The mean annual temperature is about 61°, the southern sections and the valleys being warmer than the highlands. The rainfall decreases north and east of Mobile; the annual average for the state is about 52 inches.

In north, central, and south Alabama are springs of medicinal value, which have become popular health resorts. They contain iron, sulphur, magnesia, alum, and other elements. The pine sections have become abodes of health, during the autumn and winter months, for invalids forced to seek a climate more congenial than their own. Talladega, Shelby, Blount, Clarke, Baldwin, Washington, and other counties attract many visitors by their health-giving waters and their picturesque scenery.

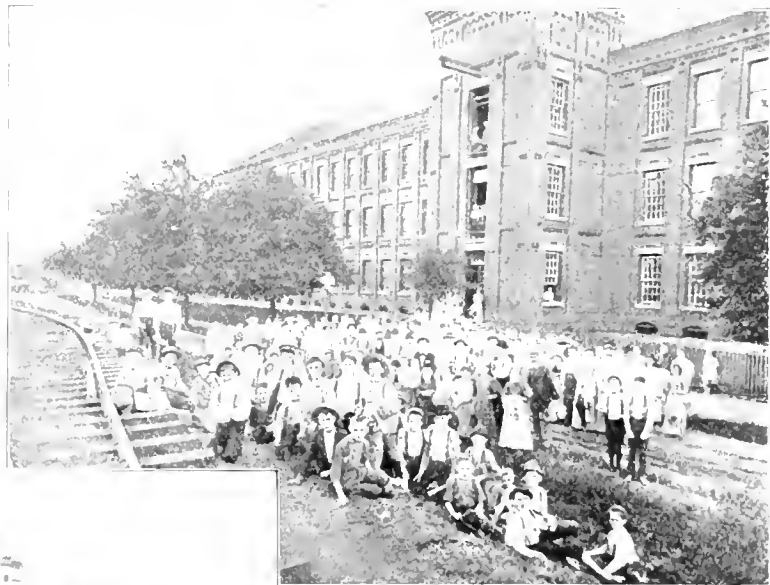
RESOURCES AND INDUSTRIES.

For better understanding, the state may be regarded as divided into four great belts, namely, Cereal, Mineral, Agricultural, and Timber.

The Cereal belt embraces the valley of the Tennessee and its tributaries. The average width is about thirty miles. Protected by mountain ranges on the north and on the

south, well watered by bold springs and clear streams, with fertile soil and an intelligent population, the valley has become famous for its beauty and its many natural advantages. Cotton is cultivated, but corn, wheat, rye, oats, barley, and potatoes are the chief crops. Stock-raising has now become an important industry. Pears, apples, peaches, grapes, and garden products are abundant.

The Mineral belt comprises one third of the state, and produces in greater or less quantities the chief minerals of trade and industry, silver excepted. Side by side and also in separate localities lie immense deposits of coal, iron, and limestone. The principal coal fields are the Warrior, with



Cotton Mills.



Cotton Warehouse, Anniston.

an area of 7810 square miles, the Cahaba, of over 400 square miles and of immense thickness, and the Coosa, of over 400 square miles. The coal is bituminous. It is free from sulphur. It is exported to Cuba, Mexico, South America, and other countries. Its cheapness and quality make Alabama rank high as a coal-producing state. The annual output aggregates 6,000,000 tons. Alabama is fourth among the states in coal production.

Both brown and red hematite iron ore are found in immense quantities in the ridges east of Sand Mountain. The most valuable outcroppings are found in St. Clair, Shelby, Jefferson, and Tuscaloosa counties, but the ore is widely diffused in other localities. Its proximity to coal and limestone makes its manufacture easier and cheaper than in some other mineral regions. In 1896 the state was third in the production of pig iron. Among the other minerals are marble, marl, and, in limited quantities, gold, copper, lead, graphite, and also excellent building stone and clays.

The Agricultural belt is less definable than any other, but the section where cotton is predominant lies south of the Mineral belt, and extends across the middle counties, covering one fourth of the entire area of the state. The soil is mostly of a dark color, and is of great fertility. The surface is generally rolling prairie. All the principal rivers, except

ing in value and importance. Proximity to the raw material, a mild climate, cheap fuel and food, and longer hours of labor, give many advantages in manufacturing.

Commerce. Cotton, coal, and iron are the leading contributions of the state to the world's commerce. Railway and river transportation furnish facilities for outgoing and incoming trade. There are about 3700 miles of railroad in the state.

A fleet of steamers carries the trade between Mobile and Liverpool and Bremen; steamers operate between Mobile and Mexican and Central American ports; and other lines connect Mobile with points in Florida and in the tropical fruit belt. In 1897 957 vessels, of increased capacity, made possible by the deepening of the channel, entered and cleared at Mobile, with \$848,129 in value of imports, and with exports which were valued at \$10,131,189.

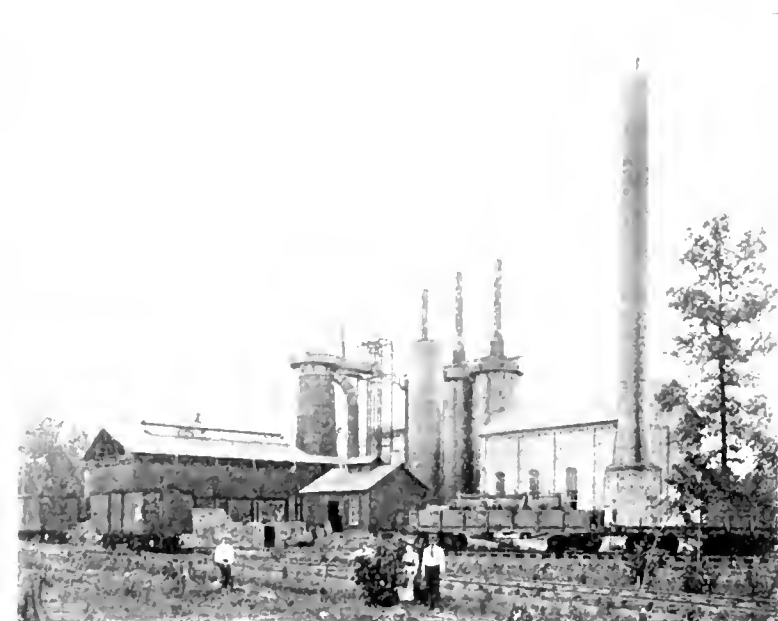
HISTORY.

The Indian inhabitants of Alabama belonged to three great families: the Mobilians, including the Choctaws in the southwest, the Chickasaws in the northwest, and the Muskogees or Creeks, who roamed over the central part of the state; the Cherokees, living among the mountains in the northeast; and the Tensas Indians, who occupied the banks of the Mobile River and its bayous.

The first white men to enter this region were De Soto and his followers, who, in 1540, crossed the country

from the Savannah to the Mississippi River. With these men of war were seigns of the noblest families of Spain, who came in quest of gold and glory. The exact route of their tortuous march through Georgia, Alabama, and Mississippi cannot be traced with any accuracy.

The first settlement was made by the French under Bienville, at the mouth of Dog River, on Mobile Bay, in



Blast Furnace, Birmingham.

the Tennessee, flow through this section, furnishing ready and cheap transportation to the Gulf. Alabama is the fourth in rank as a cotton-producing state. After cotton, corn is the favorite crop, and wheat, oats, rye, barley, potatoes, turnips, onions, and peas are cultivated on nearly every farm.

Almost every kind of vegetable and fruit grown in the United States finds here congenial soil and climate. Apples, pears, plums, peaches, cherries, berries of all kinds, melons, figs, etc., grow abundantly. Fruit culture has been far more remunerative than fields of cotton. On the mountain sides are excellent pasture facilities, and the pine districts afford luxuriant grasses on which sheep and goats are sustained almost throughout the year. Stock-raising and wool-growing are becoming profitable industries. Several large sheep ranches are maintained, with herds numbering from 3000 to 5000 head; and in Escambia county 30,000 sheep are supported upon the nutritious native herbage.

The Timber belt lies south of the Agricultural, and abounds in forests, which cover hundreds of thousands of acres. The long-leaved pine, the cypress, juniper, and poplar, and other woods sustain hundreds of mills and a large lumber trade, home and foreign. The turpentine business has much increased. In this and the other belts there are a great variety and abundance of other trees, such as the oak, hickory, walnut, cherry, beech, locust, cedar, elm, maple, short-leaved pine, and magnolia.

Manufacturing is rapidly becoming an important industry and a source of increasing prosperity. The reducing and rolling of iron is the largest manufacturing interest, carried on chiefly in Jefferson, Bibb, Shelby, St. Clair, Talladega, Calhoun, Cherokee, and Etowah counties. The sawing of lumber, the manufacturing of cotton goods and furniture, the grinding of grain, the production of cotton-seed oil—these and other kinds of manufacture are grow-



Pipe Works, Anniston.



View of Birmingham.

1702. In 1711 the colony was moved to the site of Mobile. By the treaty of Fontainebleau, in 1763, this region came into possession of the English. At the close of our Revolution England ceded to the United States the region north of 31° north latitude, and to Spain the region south of that parallel. The latter was not attached to the United States until 1803.

Mississippi territory was organized in 1798, and enlarged in 1802 so as to embrace the present states of Mississippi and Alabama north of 31° north latitude. In 1817 this territory was divided, the eastern part becoming Alabama territory. Alabama was admitted to the Union as a state with its present boundaries December 14, 1819, a convention of 45 delegates from 15 counties having met in Huntsville and framed a constitution in the month of July preceding.

Early in January, 1861, Alabama passed an ordinance of secession, and she aided in establishing the government of the Confederate States.

Montgomery was the first capital of the Confederacy, and its president was inaugurated there. During the war Alabama supplied 122,000 troops to the Confederate army. The battles of Spanish Fort, Fort Blakely, Fort Morgan, Selma, Tuscaloosa, and the capture of Colonel Streight (in Cherokee county) with 1700 men, all occurred within the territory of this state.

St. Stephens, where the first and last territorial legislatures met, Huntsville, Cahaba, and Tuscaloosa, have each in turn been the capital of Alabama, but ever since 1846 Montgomery has been the seat of the state government.

According to the census of 1890, Alabama contained a population of 1,513,017, of which nearly one half was of African descent. Less than one per cent of the people were foreign-born. Three fourths of the working population are engaged in agriculture.

Government. The legislative power is vested in a general assembly, composed of a senate and a house of representatives.

The executive power is vested in a governor, secretary of state, treasurer, auditor, attorney-general, and superintendent of education, all elected by the people for two years.

The judicial power is vested in a supreme court, circuit, chancery, county, and probate courts. There are also courts of county commissioners, municipal courts, and justices of the peace in all the precincts.

The state is divided into 66 counties, which are subdivided into election precincts. The local government is in the hands of appropriate officers, chosen by popular vote.

Education. The state is divided into school districts, each of them having one or more public schools, where all children in the district between the ages of 7 and 21 years may obtain an education free of cost.

Higher education may be obtained at the University of

Alabama at Tuscaloosa. It was opened in 1831, and provides for students both academic and professional courses. The Agricultural and Mechanical College, or the Alabama Polytechnic Institute, with many laboratories and a large experiment farm, is located at Auburn. The Girls' Industrial School is at Montevallo. These are all for white students, and give free tuition at the expense of the state.

State normal schools are located at Florence, Troy, Jacksonville, and Livingston for white teachers, and at Montgomery and Huntsville for colored teachers. Besides these, there are excellent colleges and schools for both sexes and both races at various places in the state. Among them are the Normal and Industrial Institute at Tuskegee; Talladega College; Greensboro University; Judson Female Institute, chartered in 1839; Marion Female Seminary; Howard, Lafayette, Lineville, Springhill, Athens, East Lake, Union, and Isbell colleges; the Synodical Institute; Central Female Institute; Alabama Conference Female Institute; and numerous academies.

CITIES AND TOWNS.

Mobile, the county seat of Mobile county, is the largest city and the commercial metropolis of Alabama. Mobile is one of the largest cotton-shipping ports of the United States, having six miles of improved river frontage. Naval stores, timber, and early fruits and vegetables are other important articles of export, while coffee and tropical fruits are the principal articles of import.

Mobile has extensive manufactures of lumber, foundry and machine-shop products, etc. It has a fine system of public schools and several higher institutions of learning. It is also well supplied with libraries, churches, charitable institutions, and public buildings.



State Capitol, Montgomery.

Birmingham, the county seat of Jefferson county, is the center of the mineral region of the state, and the location of large iron, steel, and smelting works, which give employment to many thousand workmen. Its rapid growth and the development of its manufacturing industries have been among the most remarkable incidents in the history of the state.

Birmingham is also the most important commercial and railroad center in Alabama. The city has excellent schools, and is the seat of Howard and East Lake colleges.

Montgomery, the county seat of Montgomery county, is the state capital. The capitol building has a commanding situation overlooking the city and surrounding country. The city is well laid out, beautifully ornamented, and has good schools. Montgomery has considerable manufactures, and is an important cotton market and trade center.

Anniston, in Calhoun county, is in the midst of a fine agricultural and mineral region. Anniston is a city of recent and remarkable growth. It has extensive manufacturing establishments of iron, cotton, and other products. It has good schools.

Huntsville, the county seat of Madison county, one of the oldest places in the state, is in the grazing and farming region of the Tennessee valley. Lumbering is an important industry, and there are manufactures of cotton goods, furniture, etc. The educational advantages of Huntsville are superior.

Selma, the county seat of Dallas county, is situated in a fine agricultural section, and commands a large trade in cotton and general merchandise. It has excellent railroad facilities and extensive manufactures, including railroad shops and cotton mills. The city has excellent schools.



Southern Female University, Anniston.

Bessemer, in Jefferson county, has large furnaces, rolling mills, and iron and steel manufactories. It is the center of the richest and most easily accessible deposits of iron, coal, and limestone in the country. Several lines of railroad enter the city.

Decatur and *New Decatur*, in Morgan county, on the Tennessee River, at the junction of important railroads, practically form one city. They have together extensive and varied manufacturing interests.

Enfilda, in Barbour county, on the Chattahoochee River, is an important commercial center. It has a good trade by rail and water, and a number of important manufactories.

Phenix, the county seat of Lauderdale County, has varied manufactures, a large river and inland trade, and good schools.

Fort Payne, in DeKalb county, is the center of a rich coal, iron, and timber region, and has large manufacturing interests.

Gadsden, the county seat of Etowah county, is situated in a fine mineral and timber region, and has extensive iron, lumber, and cotton mills.

Greenville, the county seat of Butler county, in the south-central part of the state, is the trade center of a large cotton-growing section.

Marion, the county seat of Perry county, is the center of a rich agricul-

tural region, and has long been distinguished for the refinement, intelligence, and hospitality of its inhabitants. Located here are the Judson Female Institute, one of the first institutions in the country to give diplomas to women, the Military Institute, and the Female Seminary.

Opelika, the county seat of Lee county, is an important railroad junction and trade center in the eastern part of the state.

Phenix is located in Lee county, at the head of navigation on the Chattahoochee River, opposite Columbus, Ga. It is a prosperous place.

Sheffield, in Colbert county, is an industrial place, with iron furnaces and manufactories.

Talladega is the county seat of Talladega county. It is an important trade and manufacturing center. It is the seat of the state institutions for the blind and deaf, and of other excellent educational institutions.

Troy, the county seat of Pike county, has several manufactories, and commands a large trade. It is an educational center.

Tuscaloosa, the county seat of Tuscaloosa county, is at the head of navigation on the



A Street in Montgomery.

Black Warrior River. Besides being the seat of the State University, it has fine public schools. It has cotton mills and other manufactories. The Alabama Insane Hospital is located near by.

Losembia, the county seat of Colbert county, is a railroad junction, and has important manufactures and fine schools.

Union Springs, the county seat of Bullock county, is a center of trade and manufactures.

GEOGRAPHY OF MISSISSIPPI.

By J. L. M. CURRY, LL. D.,

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PHYSICAL FEATURES.

Situation and Extent. In what part of the United States is Mississippi? How is it situated with reference to the other Gulf states? What parallel forms its northern boundary? Through how many degrees of latitude does it extend? What two rivers form its western boundaries? With the scale of miles find the extreme length of the state. Find its average breadth.

The area of Mississippi is 46,810 square miles. It is the smallest of the Gulf states, being a little smaller than Louisiana (48,720) and less than one fifth the size of Texas.

Surface. The highest elevations in the state do not exceed 1000 feet, but within this limit almost every variety of surface is represented. Generally it is undulating, with a gradual slope from north to south. On the Pontotoc ridge, in Tippah and Union counties, many of the hills have an elevation of 800 or 1000 feet; in the central portion the elevation is from 300 to 500 feet; while near the coast the land is only from 20 to 30 feet above the waters of the Gulf. The rolling table-lands fall off somewhat abruptly in the western part of the state, and the lowlands along the Mississippi River form the Yazoo Delta, which occupies about one sixth of the area of the state, and was called by Prentiss "the cornucopia of the world." The soil here is wholly alluvial, the result of deposits from overflows during past centuries.

There are four nearly level regions—the Yazoo Delta, just mentioned; the prairie region on the Alabama line in the northeast; the central section; and the Gulf coast, including the vast pine lands of the state, now dotted with pretty villages which contain many attractive homes.

Drainage. The drainage of the state is about equally divided between streams flowing directly into the Gulf and those entering the Mississippi River. The ridge which forms the main watershed rises in the northern part and extends almost directly southward to the Gulf. The Mississippi, which with its affluents drains nearly one third of the state, is very tortuous, its course along the western border being nearly twice the length of the state measured in a straight line. The larger part of the bottom lands lying on the Yazoo and Mississippi rivers is below the

surface level of the rivers at high water. This makes it necessary to levee the rivers in order to protect the lands from overflow. At times of extreme high water breaks in the embankments develop into great crevasses, through which the waters flow with rapidly increasing volume, inundating vast tracts of country, leaving rich sedimentary deposits, and sometimes changing the river channels for miles.



The Bluffs at Natchez.

The tributaries of the Mississippi are the Tennessee, draining parts of two counties in the northeastern corner of the state; the Yazoo, navigable to Grenada; the Big Black; and the Homochitto. The chief streams of the Gulf system proper are the Tombigbee, navigable to Columbus, and at some seasons to Aberdeen; the Pascagoula, formed from the union of the Leaf and Chickasawha; and the Pearl. At the mouths of these rivers are bays which, with the Mississippi Sound, afford anchorage for vessels of different draught.

Climate. Along the Gulf coast the climate is delightful,

and this part of the state is a favorite place of resort and residence, giving unusual opportunities for hunting, boating, and fishing.

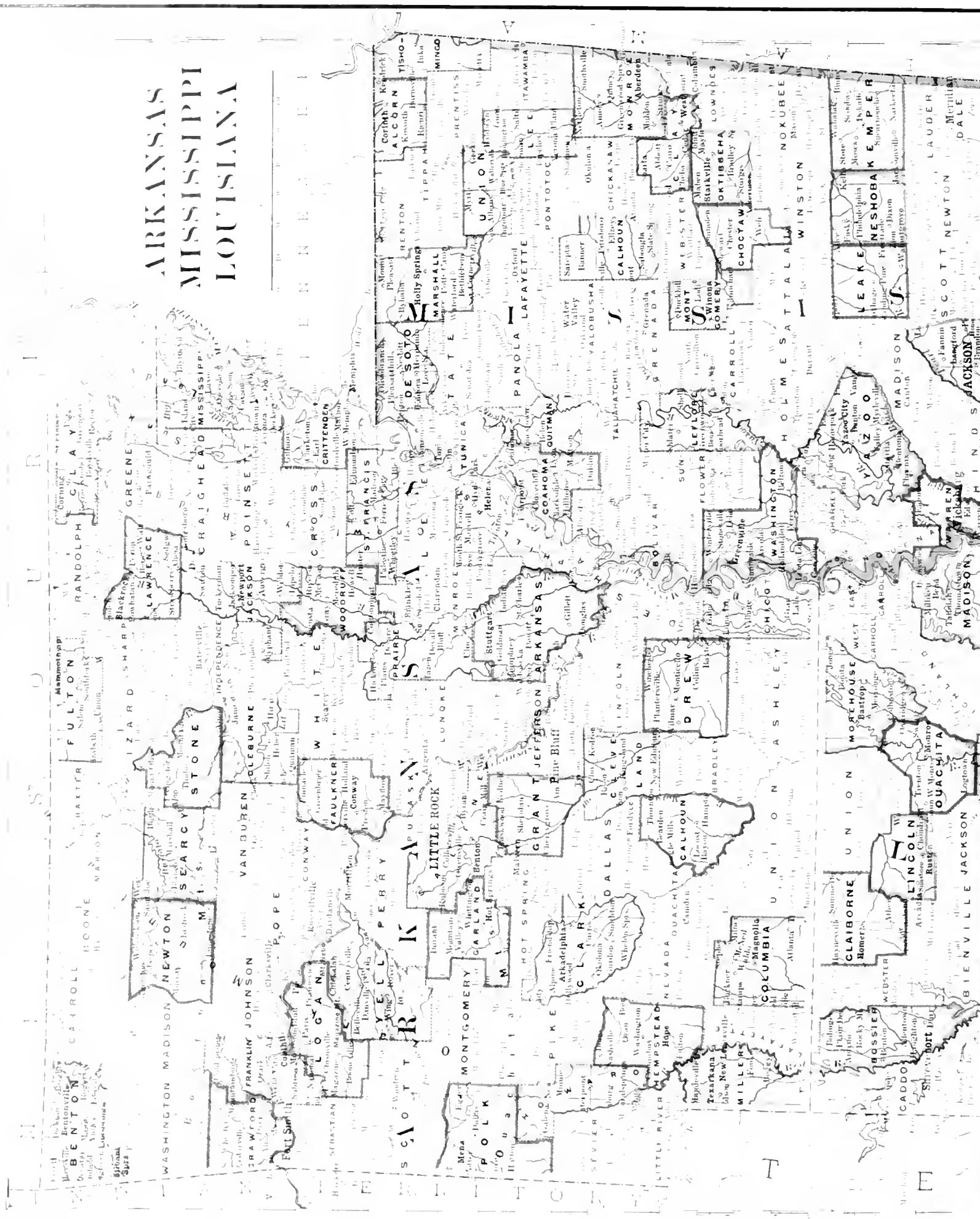
The resinous air of the pine woods and the exhilarating Gulf breezes are very helpful to invalids with chronic troubles of throat and lungs. In the interior and northern parts the climate is more variable, the temperature lower, and during the winter months light snows occasionally fall.

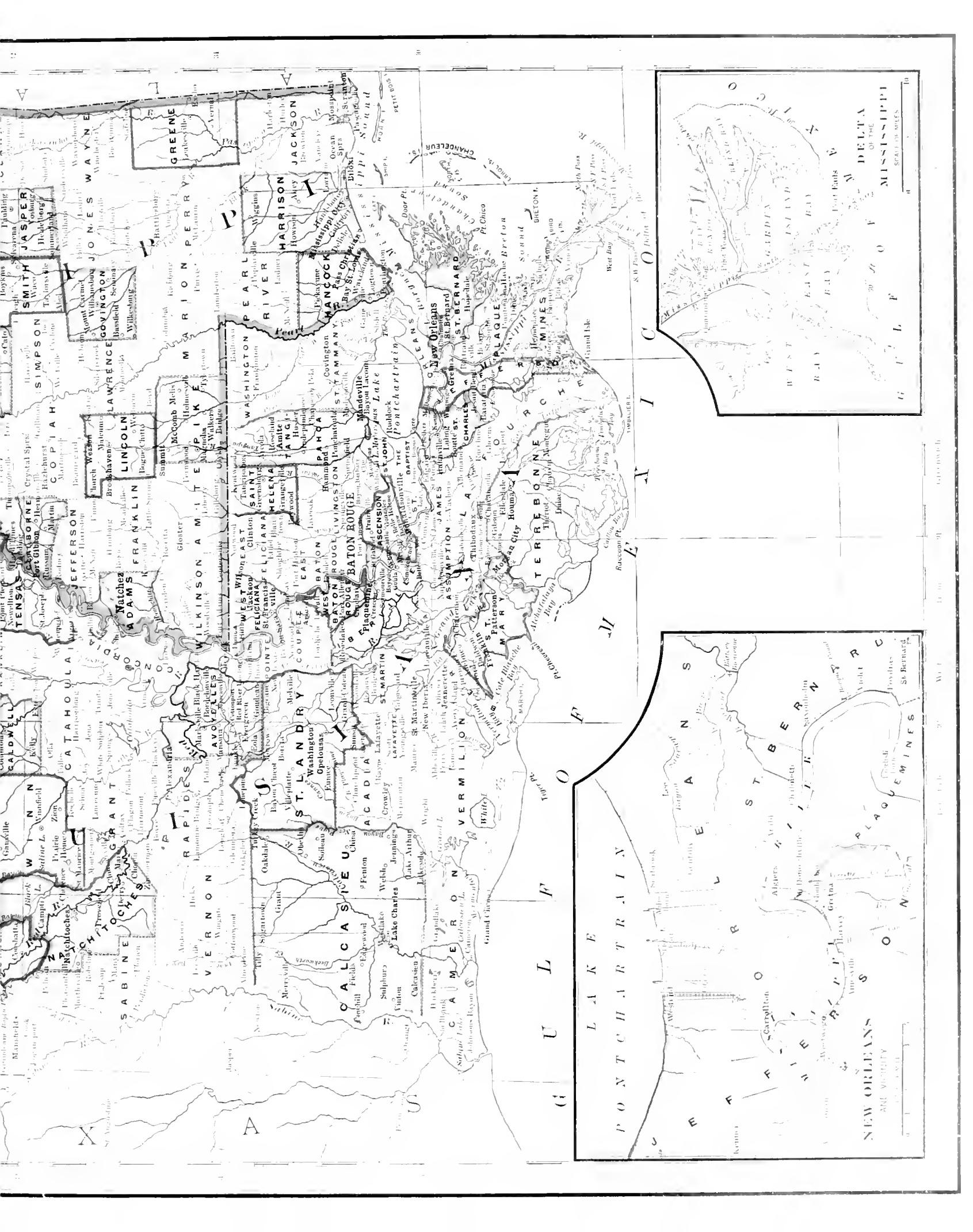
The rainfall is abundant, especially in the southern part of the state, the average being 56 inches. The prevailing winter winds are from the northwest; those in summer are from the Gulf.



A Levee on the Mississippi.

ARKANSAS MISSISSIPPI LOUISIANA







High Water on the Mississippi.

The mineral springs,—the Castalian, Iuka, Greenwood, Shin, Stafford, and Donald, and the far-famed Cooper's Wells,—are efficacious in many diseases and are popular resorts. The death rate in Mississippi is under thirteen in a thousand.

RESOURCES AND INDUSTRIES.

Agriculture. The situation of the state on the lower Mississippi River is especially favorable to the development of an industrial commonwealth. The soils are rich and varied, capable of producing successfully and profitably a large number of farm products. This is true not only of the bottom lands, but also of a large portion of the upland districts. The alluvial deposits of the great river have made the bottom lands practically inexhaustible in fertility, while the prairies and other parts of the state are hardly less productive.

Mississippi is one of the great cotton states of the country, and all its other industries are more or less tributary to the culture of the cotton plant. In proportion to the population, Mississippi produces more cotton than any other state, the yield being nearly one bale to each inhabitant. The average cotton production of the state is 1,204,000 bales annually, on an acreage of 2,835,316. The county of Washington, lying between the Mississippi and Yazoo rivers, is the greatest cotton-producing county in the country. The manufacture of cotton-seed oil greatly increases the value of the cotton crop.

The chief cereals are corn and oats, and their production is largely increasing. Wheat, potatoes, peas, beans, and sorghum are produced, and there are large grass and hay crops. In the south, rice and sugar cane are grown. The cultivation of small fruits and early vegetables has grown to be an important industry in the state, strawberries and tomatoes being grown in great abundance for foreign markets.

Forest Products. Throughout the timber district, in the southern part of the state, large quantities of pine lumber, turpentine, rosin, and tar are manufactured for New Orleans and northern markets. In other parts of

the state, the ash, magnolia, cypress, cottonwood, willow, and other trees, contribute to profitable manufacturing industries.

Commerce. The Mississippi and its tributaries afford cheap and easy transportation; and the topography of the interior is favorable to economical railroad construction.

The railroads of Mississippi have a total length of over 2500 miles, reaching nearly every part of the state.

HISTORY.

In 1540 De Soto and his followers entered the territory comprising the present state of Mississippi from the east. They crossed the Tombigbee River near where the city of Columbus now is, and spent the winter of 1540-41 at an Indian town on the banks of the Yazoo River. These were the first Europeans to look upon the turbid waters of the Mississippi.

The first settlement in Mississippi was made by the French at Biloxi in 1699. Natchez was settled in 1716, 175 years after De Soto discovered the Mississippi River.

By the treaty of Paris, in 1763, the whole of the French possessions in North America, and the Spanish possessions in Florida and east and northeast of the Mississippi, were ceded to Great Britain. From 1763 to 1781 the territory now included in the state of Mississippi was an English province. From 1781 to 1798 Spain held possession; but in 1795 all that part north of latitude 30° N. was ceded to the United States. It was not, however, until 1798 that Spanish forces evacuated Natchez, where the officials had their headquarters. That part of the territory south of latitude 31° N., having again come into the possession of the French, was attached to the United States in 1803.

By act of Congress, April 7, 1798, the Mississippi territory was organized, and was subsequently enlarged by various additions so as to include all of the present states of Mississippi and Alabama. In 1817 (December 10) Mississippi was admitted to the Union as a state, with its present limits.

The growth of the state in population and intelligence was from the first very rapid, and its citizens always exerted a large influence in national affairs.

Mississippi was the second state to pass an ordinance of secession, the state convention taking that action January 9, 1861.

During the war which followed, the northern and western borders of the state were frequently the scene of important military movements. The state was more than



Vicksburg.

once overrun by large raiding forces of Federal soldiers, and suffered much in consequence of their invasions.

Politically the state held a leading place in the Confederate government; and one of its citizens, Jefferson Davis, was president of the Confederacy during its entire existence.

After the war the state was under provisional and military government until March, 1870, when civil government was reestablished under the constitution adopted in 1869.

During the decade from 1870 to 1880 the population of Mississippi increased from 827,922 to 1,131,597, or over 36 per cent. The population in 1890 was 1,289,600.

Government. The government of Mississippi is conducted under the constitution adopted November 1, 1890.

The legislative department consists of a senate and a house of representatives. Senators and representatives are elected for four years.

The executive department consists of a governor, lieutenant-governor, secretary of state, treasurer, and an auditor of public accounts. There are also an attorney-general and a superintendent of public education. All are elected by the people for four years.

The judicial department comprises a supreme court, circuit, chancery, and justices' courts. Judges and chancellors are appointed by the governor, and confirmed by the senate. Justices of the peace are elected by the people.

Mississippi contains 75 counties. It has 2 senators and 7 representatives in Congress, and therefore has 9 votes in the electoral college.

Education. The constitution guarantees free public schools for four months in each year. Several counties extend the term, and nearly all the towns and cities have annual sessions of nine months. The chief educational officers are the state superintendent of public education and a state board of education.

County superintendents of education are elected by the people in most of the counties, and by the state board of education, with the consent of the senate, in the others. Their term of office is four years.

Each county is divided into school districts, in each of which a school must be located. Free schools are thus established throughout the state, and in towns and cities there are graded and high schools.

The State University is at Oxford; the State Agricultural and Mechanical College is near Starkville; the Industrial Institute and Female College is at Columbus; the state institutions for the education of the deaf and dumb and the blind are at Jackson.

Alcorn University and Agricultural and Mechanical College, near Rodney, and the Normal School at Holly Springs, are state institutions exclusively for the benefit of the colored race.

There are many flourishing colleges and academies under private or denominational management in different portions of the state. Among these are Tougaloo University, Jackson College, Rust University, Natchez College for negroes, and Bellhaven College, at Jackson; Whit-

worth College, at Brookhaven; the Mississippi College and Hillman College, at Clinton; St. Stanislaus College, at Bay St. Louis; Union Female College, at Oxford; the Collegiate Institute, at Grenada; the Southern Female College, at West Point; East Mississippi Female College and Stone College, at Meridian; Lea Female College, at Summit; Millsaps College, at Jackson; Blue Mountain College; and colleges for girls at Pontotoc and Port Gibson.

CITIES AND TOWNS.

Jackson, the capital of Mississippi since 1822, is situated on the Pearl River, in Hinds county, near the geographical center of the state. It is the junction of trunk railway lines, and commands an extensive trade in cotton and general merchandise. The city is regularly laid out, and contains several handsome public buildings. In addition to the capitol, the state institutions for the insane, the deaf and dumb, and the blind, and also the state penitentiary are located here. The city is well supplied with public schools, and is the seat of several denominational institutions of learning which hold a high rank.

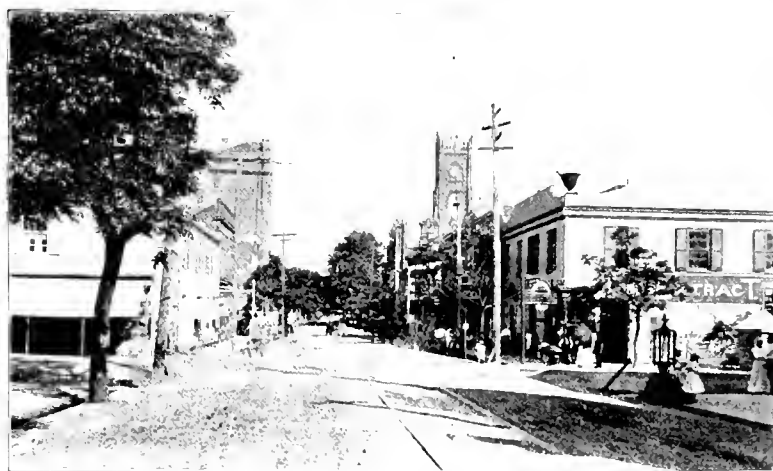
Vicksburg, the county seat of Warren county, is the largest city in the state. It is situated on the Mississippi River, not far below the mouth of the Yazoo. It derives its importance from its location, and from being the commercial center of the richest cotton-producing district of the state. It has a large river and inland trade. In addition to the advantages of river transportation,

Vicksburg has good railroad connections. The city is well built and contains many fine residences, though its site is generally hilly and irregular. It has excellent schools and other public institutions.

Meridian, the county seat of Lauderdale county, is an important railroad, manufacturing, and commercial center. It has manufactures of cotton goods, machinery, furniture, carriages, and wagons; also oil mills, railroad shops, and other manufactories. It commands a large cotton and jobbing trade with the surrounding country, and is well supplied with compresses and warehouses. It is noted for its educational advantages. The East Mississippi Insane Asylum is located here.

Natchez, the county seat of Adams county, is the oldest city in the state. It is beautifully situated on the Mississippi River, about 80 miles below Vicksburg. Its location on a high bluff commands an extended prospect of the surrounding country. The city is noted for its fine residences and cultivated society. It has substantial public improvements and good public and private schools. It has also a large trade in cotton and general merchandise, and is the location of several excellent institutions of learning.

Greenville, the county seat of Washington county, is



A Street in Natchez.

located on the Mississippi, about 92 miles above Vicksburg. It is the center of an extensive network of railways, and the commercial center of the rich agricultural section known as the Yazoo Delta. The chief industry is that of handling and shipping cotton, for which it has good facilities. It has cotton-seed oil mills, saw and planing mills.

Columbus, the county seat of Lowndes county, is favorably located on the Tombigbee River, being at the head of regular steamboat navigation, and at the junction of several railroad lines. It is an important cotton market, and has a large and increasing trade. In addition to its public schools, it is the location of several higher educational institutions, principally the flourishing Industrial College for girls, the first of the kind established in the Southern states.

Aberdeen, the county seat of Monroe county, is situated in the northeastern part of the state, on the Tombigbee River, which during a part of the year is navigable to this point. It is surrounded by a fine agricultural country, with which it has a large trade. It is noted for its fine climate, and for artesian mineral waters.

Bay St. Louis, *Pass Christian*, *Mississippi City*, and *Ocean Springs* are favorite places of resort and of both summer and winter residence. While all have abundant semitropical fruits, Ocean Springs does a large fruit-growing business, and sells large quantities of grapes, pears, olives, and figs.

Biloxi, in Harrison county, is situated on the coast, between the Bay of Biloxi and Mississippi Sound. It is a noted health resort, and is largely

visited both summer and winter. It is the largest town on the coast, and has important manufacturing interests, extensive canneries, and sawmills and planing mills.

Brookhaven, the county seat of Lincoln county, is located in the midst of the yellow pine region, 54 miles south of Jackson. It has several manufactories and a good trade.

Canton, the county seat of Madison county, is surrounded by a fertile country. It is beautifully laid out, having its streets lined with fine live oaks, and is noted for its nurseries and flowers, and for its shipment of fruits and vegetables.

Corinth, the county seat of Alcorn county, is a growing railroad center and cotton market, in the northeastern part of the state. It has some manufactures.

Grenada, the county seat of Grenada county, is a railroad junction.

Holly Springs, the county seat of Marshall county, is noted for its excellent educational institutions and good railroad facilities. It has a large trade with the surrounding country.

McComb, in Pike county, 78 miles south of Jackson, is a growing place.

Okolona is a prosperous and growing town, in Chickasaw county.

Water Valley, the county seat of Yalobusha county, is the location of large railroad shops, which employ many hands.

Wesson is in Copiah county, on an important railroad, 9 miles from Brookhaven. It has large manufactures of cotton and woolen goods, which employ many hands.

West Point, the county seat of Clay county, is an important railroad center, and is located in the midst of the rich prairie section of the state. It has factories and machine shops.

Yazoo City, the county seat of Yazoo county, is located on the eastern edge of the Yazoo Delta. It has cotton compresses, oil mills, gristmills, and several other manufactories. It is an important shipping point of cotton. Here is one of the finest school buildings in the South.

GEOGRAPHY OF LOUISIANA.

By W. W. CLENDENIN, A. M., M. S.,

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PHYSICAL FEATURES.

Location, Boundaries, and Extent. In what part of the United States is Louisiana? What parallel of latitude forms the northern boundary of that part of the state west of the Mississippi? What parallel forms the northern boundary of that part on the east side? What forms the eastern boundary between these two parallels? What other river forms a part of the eastern boundary? Describe the western boundary. By what is the state bounded on the south? Name the other states that border upon the Gulf. Where is the most southern point of Louisiana? Through how many degrees of longitude does the state extend; through how many degrees of latitude? With the scale of miles, find the greatest extent of the state north and south; east and west. The area of Louisiana is 48,720 square miles. It is a little larger than Mississippi (46,810 square miles) and a little smaller than Arkansas (53,850 square miles).

Topography and Drainage. In common with all the states that border upon the Gulf of Mexico, Louisiana has been many times beneath the sea, and as often raised above sea level to form part of the land. The topography of the state as we now see it is largely the work of those vast form-producing agencies which wrought during the last two periods of elevation, when Louisiana

was land, and of those which were active in the intervening period of subsidence, when it was sea bottom.

A study of the topography seems to prove that during the period of elevation last previous to the present one Louisiana stood at a much greater height than now. It also seems to have remained sufficiently long at that greater height to enable the rivers to cut their valleys wide and deep, and to send their tributary branches into every part of the region, the whole of which was then probably hilly.

The subsidence which followed brought the highest hilltops below the level of the sea, enabling the Gulf of Mexico to extend its waters northward beyond the northern limits of the state. Still farther north the land remained above sea level, and from this unsubmerged land the streams brought sediment and deposited it over the drowned hills and valleys of Louisiana. With this sediment all the valleys were partially filled, many of them completely, and the hills themselves received a veneering.

When Louisiana again rose above the sea, the northern

part, which was the last to disappear and the first to reappear, still presented a hilly surface, though the inequalities of hill and valley had been greatly reduced. The streams again occupied their former valleys,—now partially filled,—having only to cut new channels. Farther south, where the drowning had lasted longer, the leveling by sediment had been complete, and hill and valley alike had been entirely buried and obliterated.

A line drawn approximately east and west through Lake Charles, Baton Rouge, and Covington will separate the hill section from the flat section, and these, together with the wide flood plains of the Mississippi and Red rivers, make up the types of surface in the state.

The hills are well and completely drained by streams with steep, V-shaped valleys; and these streams pour their waters into a few larger master streams, whose wide, though partially filled, valleys are an inheritance from a former geologic period. The ridges are water partings, and there are no considerable level interstream areas.

The flats are imperfectly drained by slightly branched

and sluggish streams, which follow sinuous courses, and finally empty directly into the Gulf or join the master streams from the hills. In the flats, wide, undrained interstream areas are the rule.

The bottom or alluvial lands constituting the flood plains of the Mississippi and Red rivers are in most respects topographically unlike both the hills and the flats. They are broad, smooth areas, and are the products of the rivers they border.

These lands are highest along the banks of the streams that produce them, and their drainage is consequently away from the streams. This imperfect drainage is accomplished by a network of sluggish streams called bayous. With each flood stage of the parent river the flood plain is built up by a coating of sediment, and these periodic deposits have accumulated during the history of the river to many hundred feet in thickness. To protect these alluvial lands from the periodic overflows of the parent rivers, artificial levees have been built.

In Louisiana the Mississippi, Red, and Atchafalaya rivers are the only streams that have been systematically leveed by the state. There are private levees along many of the smaller streams and bayous.

Rivers and Lakes. No other state in the Union has so many miles of frontage upon navigable waters as Louisi-



A Planter's Home, Louisiana.



Lake Pontchartrain.

siana. The entire southern coast is accessible to coasting vessels, and so far-reaching are her rivers that only two parishes in the state are inaccessible by navigable streams. From Pearl River upon the east to Sabine River upon the west almost every stream that enters the Gulf is navigable.

Of these the Chefunete, Tangipahoa, Tickfaw, and Amite, east of the Mississippi, and the Calcasieu in the southwest, have their sources in the hills; and their partially filled valleys show them to be the modern representatives of rivers belonging to a former period of elevation. They are clear, deep, and, in their upper courses, rapid streams, constantly supplied from the hills by spring-fed tributaries.

Another class of streams in south Louisiana includes those which, though sometimes sending their more northern feeders into the hills, are confined for the most part to the coastal flats and marshes, and belong in their development to the present period of elevation. They have steep and often vertical banks, their depth is abnormally great in comparison to their width, and their sluggish currents follow tortuous courses through lands but little higher than their own surfaces. In south-east Louisiana they are generally, though improperly, called bayous; as, *Bayou Liberty* and *Bayou Lacomb*, in St. Tammany parish. In southwest Louisiana the Vermilion and Mermentau rivers are of this class.

The Mississippi, though in a sense national, is peculiarly a Louisiana river. This state forms its right bank from the Arkansas line to the river's mouth, and south of 31° north latitude lies upon both sides of it, so that in this last particular Louisiana has a peculiar claim upon it.

Though of little importance as a carrier of the state's drainage, there being not more than fifteen townships (in East Baton Rouge, East Feliciana, and West Feliciana parishes) whose surface waters must of necessity be poured into it, the Mississippi is, nevertheless, vastly the most important river in Louisiana. Through it and its tributaries this state is put in water communication with most of the country between the Appalachian and Cordilleran mountains; and but for the shoaling at its

mouth,—which engineering skill is fast overcoming, the largest ocean steamships could at all seasons reach as high a point as Baton Rouge, and for most of the year beyond the limits of the state.

Next to the Mississippi, the Atchafalaya (more properly a bayou) is the most important Louisiana stream entering the Gulf. Like the bayous Lafourche and Plaquemine, the Atchafalaya is in the true sense a distributary of the Mississippi.

The natural course of the Red River is through the Atchafalaya, which is rapidly widening and deepening its channel, and the connection of the Red and Mississippi could be closed without affecting the thorough drainage of the section under consideration.

Between the Atchafalaya and the Mississippi, and north of Red River in the Mississippi alluvial lands, exist a multitude of bayous whose channels are vastly larger than are required or could be produced by the rainfall upon these lands alone. They owe their capacious channels to the action of the flood waters of the Mississippi before these were restrained by artificial levees.

These bayous, connecting as they do with each other and with the Arkansas, Red, and Mississippi rivers, and extending to the Gulf, constitute probably the most extensive, and potentially the most important, system of natural canals upon the globe.

Next to the Mississippi, the Red is the most important river in Louisiana. It is navigable throughout its course

in the state for most of the year, there being but a short summer season when the depth is not everywhere sufficient for the steamers that ply on this river. It brings north Louisiana and the rich alluvial lands along its own course into easy water communication with New Orleans and other great commercial centers.

Louisiana has many lakes. Three distinct types will be considered. Representing the first type are: east of the

Mississippi, Lakes Maurepas, Pontchartrain, and Borgne, a series which probably represents an ancient lower course of that stream; west of the Mississippi, Lakes Salvador, Grand, White, Grand (in Cameron parish), Calcasieu, and Sabine.

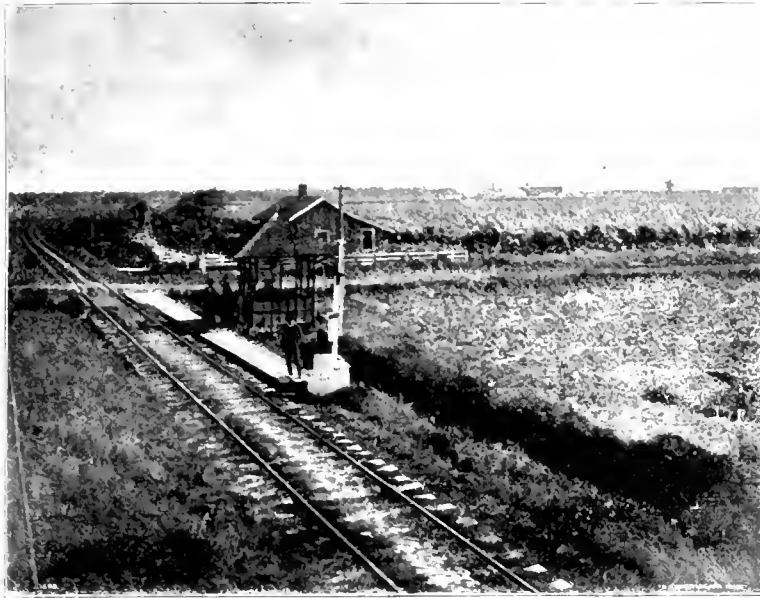
These are usually expansions of streams that enter the Gulf, and were once what the marginal bays now are. They have been produced by the encroachment of the land upon the Gulf, and the shifting of sediments across their mouths by Gulf currents.

These lakes are being filled by the sediments brought down by the rivers flowing through them, and their shallowness offers the most serious obstacle to the navigation of these streams.

Another type of lakes is that found along Red River. They are invariably expansions of tributaries of this river, and have been produced by the drowning of the lower valleys of these tributaries by the building up of the Red River flood plain.



A Swamp, Red River Region.



A Sugar-Cane Plantation.

The third type includes the great number of small lakes that border the Mississippi and Red rivers and their bayous. These are usually of a crescent or horseshoe shape, and, while most commonly called lakes, are frequently designated as "old rivers" and "false rivers." They are in fact abandoned sections of rivers and bayous, and are produced by cut-offs in the process of the streams' development.

Soil. In southeast and southwest Louisiana are the long-leafed pine flats. Here the soil is derived from the underlying grayish sandy clay, and is not generally considered fertile. In the pine hills to the north of the flats the soil is much more sandy.

Bordering the wide Mississippi alluvial plain, upon the adjacent highlands, occurs a deposit of brownish-yellow clayey loam called buff. It is very similar in appearance, texture, and composition to the loess deposit along the Rhine River in Germany, and is probably of a similar glacial origin. This loam is fine-grained, even-textured, and rich in all the elements of plant food, and produces a soil that for fertility, ease of cultivation, and wide adaptability excels every other soil in the state.

The alluvial lands of the Mississippi and Red rivers present another distinct type of soil. They are equally prized for their fertility.

In the lower valley, south of Red River, these lands constitute the great sugar-cane plantations of Louisiana. North of the Red River cotton and corn are the staple crops.

The Red River alluvium is of a brick-red color. Throughout the valley cotton and corn are the staple crops.

Climate. The climate of Louisiana is tempered by the adjacency of the Gulf and the presence of the large water surface furnished by the numerous bayous, rivers, and lakes. Along the southern coast frost rarely occurs, and in no part of the state are sudden or severe weather changes common. The prevailing direction of the wind is south to southeast, and the rainfall is abundant, though nowhere excessive.

The rains are well distributed through the year, being somewhat more abundant during the growing season, and for the year amount to from 60 to 75 inches. They are chiefly cyclonic in character.

ECONOMIC PRODUCTS.

Minerals. Sulphur is obtained in Calcasieu parish, and is known to exist there in great quantities. Rock salt is mined in Iberia parish, and has been found at Orange Island in that parish in a continuous deposit over 1800 feet thick. Some fairly good sandstone is quarried in Vernon parish, and crystalline limestone in Winn parish; but these areas are small and relatively of little importance. Clays suitable for building and paving brick are found, and these constitute the chief mineral wealth of the state.

Farm Products. Though Louisiana lands are well adapted to diversified farming, the three products, cotton, rice, and sugar, have in turn yielded such splendid profits in times past that most of the farmers and planters yet cling to the one-crop system, and continue to plant the particular crop whose culture they have become familiar with. Thus in south Louisiana we find extensive sugar plantations, and in southwest Louisiana broad rice fields, while for the remainder of the state cotton is the great staple "money" crop.

In St. James parish, upon sandy alluvial lands, the now famous Perique tobacco grows; and this same tobacco may be grown upon any of the sandy alluvial lands either of the Mississippi or Red rivers in Louisiana.

Corn, hay, and live stock are being produced in increasing quantities, and each year sees the Louisiana planter and farmer less dependent upon his northern and western neighbor.

Market gardening has proved profitable in almost every section of the state where tried, especially about New Orleans and along the north and south trunk lines of railroad.

Fruits. The sandy soils of west and north Louisiana are proving well suited to peaches, grapes, and melons. All these yield good profits. Oranges are an important crop along the southern coast and along the lower courses of all the streams entering the Gulf. Pecans are grown



Cotton Ready for Shipment, N. O. Orleans



A Cotton Gin.

for the market, and many orchards of improved varieties are now being planted.

Timber. Extensive areas of cypress timber occur along the bayous and in the back swamps of all the larger streams. Both long-leaved and short-leaved yellow pine is obtained from the hills.

The hard woods, oak, ash, and other trees, grow in commercial quantities in the alluvial lands; and much upland oak for staves is obtained from north Louisiana.

INDUSTRIES.

Farming. Louisiana being an agricultural state, the chief occupation of the people is farming or planting. Sugar is manufactured and often refined upon the plantation where grown, and sirups and molasses are also made there.

Manufacturing. As there is no water power in the state, and since it is so far from the great coal fields of the country, comparatively few manufacturing enterprises have been launched here. Only those cities and towns,—as New Orleans, Plaquemine, and Baton Rouge,—whose supplies of coal can be floated to their wharfs from the Pennsylvania coal fields can ever hope to become important centers of manufacture. However, the excellent facilities for cheap water transportation afforded by the Louisiana waterways have in a measure compensated for expensive power, and a few factories are found. The most important, next to the sugar mills, are: pine and cypress mills and factories; mills for cutting hard woods; brick factories; ice factories; cotton-seed oil mills; a few factories for the manufacture of cotton; and in New Orleans a few others making leather goods, tobacco, etc.

In the long-leaved pine sections a few turpentine orchards are found, and a limited amount of charcoal is made. Cotton compresses are found in New Orleans, Shreveport, and Baton Rouge.

Fishing. Along the Gulf coast and the streams tributary to it the fish and oyster industry is important and growing. Besides supplying local markets with their products, Barataria Bay and Berwick Bay are sending their oysters to distant markets.

Commerce. The transportation of both raw and manufactured products is facilitated by the great length of coast and navigable streams, and by the goodly length of railway lines. As no parish is far removed from a navigable stream, so none is remote from a line of railroad. There are over 2200 miles of railroad in the state.

Government. The state government of Louisiana is conducted under the constitution of 1898.

The legislative department is vested in a general assembly, consisting of a senate and a house of representatives. The members of both of these bodies are elected by the people for 4 years.

The general assembly meets in May of the even years, and the sessions are limited to 60 days.

The executive department consists of a governor, lieutenant-governor, auditor, treasurer, and secretary of state, all elected for a term of 4 years by the people.

Other state officers whose duties are in a measure executive are an attorney-general, an adjutant-general, a state superintendent of public education, and a commissioner of agriculture and immigration.

The judicial department consists of a supreme court, appellate courts, district courts, and justices' courts.

Parish Government. The early settlers and lawmakers of Louisiana having been Spanish and French, the names, customs, and laws of Spain and France have survived in the state. One of these, that makes this state unique in our country, is the division of the state into parishes and wards, instead of counties and townships as is customary in other states. The wards are subdivided into precincts.

Each of the 59 parishes has its separate government. The legislative powers are vested in a police jury, consisting of one jurymen from each ward, elected by the people, and serving for 4 years. In most respects New Orleans has a separate government from the rest of the state.

Education. The public free educational system of Louisiana includes the common schools, high schools, technical schools, and the State University. Separate schools of all grades are provided for white children and negroes.



View of New Orleans from the River.

The foundation of the system is the free common school, which admits without charge all children of the state between the ages of 6 and 18 years. For the support of these schools Louisiana expends more for each pupil enrolled than any other distinctly southern state.

In many parishes of the state high schools have been organized. These secondary schools, designed to fit men and women for business life or for the State University, are extensions of the common schools, and, like them, are free.

There is a state board of public education, whose duties, with those of the state superintendent, pertain to the public common and high schools of the entire state.

The technical schools of Louisiana include the State Normal School, for the training of teachers, at Natchitoches; the Industrial Institute at Ruston; and the Southern University (for negroes) at New Orleans. These are all doing a splendid work. They are coeducational.

The Institute for the Blind and the Institute for the Deaf and Dumb are at Baton Rouge. These two institutions are doing a noble work in preparing unfortunate children to earn an independent living.

Crowning the free educational system of Louisiana is the State University and Agricultural and Mechanical College at Baton Rouge. It is severely military, and open only to young men, no provision being made by the state for the university training of young women. There are many private academies, high schools, and colleges in the state.

CITIES AND TOWNS.

The population of Louisiana in 1890 was 1,118,587. In 1896 it was estimated at 1,225,000. The principal cities and towns are briefly described below.

New Orleans, the metropolis of the state, is on the left bank of the Mississippi, 100 miles above the head of the passes. It has a population of about 275,000, and besides being the largest city in the state, it is the most important southern port. It is the greatest cotton market in the world, and is rapidly becoming the most important export point for the grain of the Northwest.

Because of the many steamers plying between this city and tropical countries, New Orleans is the chief distributing center for tropical fruits in the United States. The largest ocean steamers can load at its wharfs, and its commerce is with every civilized nation of the globe.

The climate is subtropical, and the winters are especially delightful. Many northern people make this their winter home. With improved water service and sewerage, New Orleans would stand high among the healthy cities of the United States. Few cities have a better street railway service, the lines being chiefly electric.

The educational facilities are good for both elementary and higher instruction. A good system of free common and high schools is maintained, and Tulane University and H. Sophie Newcomb College make excellent provision for the higher education of both young men and young women. Southern University, for negroes, is one of the best institutions for the higher education of that race in the South. Here are also excellent business colleges and private schools.

Many beautiful homes are to be seen in New Orleans, and its public parks, though few, are among the prettiest in the country. Audubon Park is specially noteworthy, both for its beauty and because it is established in honor of the great Louisiana naturalist, John J. Audubon.

This city is the location of a United States mint, of a most excellent charity hospital, and of the Louisiana Sugar Experiment Station.

Shreveport is the second largest city in Louisiana, and has a population of about 15,000. It lies upon the hills to the south of and bordering Red River in Caddo parish, of which it is the parish seat.

Situated at the intersection of four great trunk lines of railway, with several branch connections, it has railroad facilities which excel even those of New Orleans. The Red River, navigable for most of the year, gives water communication with distant markets. The water supply for the city is derived from Red River, and when properly filtered is wholesome. An abundant and pure supply of spring water could be obtained from the Caddo Hills to the north, and this may be done.

Shreveport has a good high school and several private schools. The Charity Hospital here, like that at New Orleans, is a state institution, and is widely known for its excellence.

An ice factory, cotton-seed oil mills, cotton compresses, and car shops are the principal manufactories.

Baton Rouge, the capital of Louisiana, is the third city in population in the state. It is situated upon the left bank of the Mississippi, in East Baton Rouge parish, 130 miles above New Orleans, and marks the southern limit of the highlands bordering this river. Its permanent population is about 12,000, but the state institutions here give an additional population of 2000 or more.

Besides the state institutions located here, there are a good high school and several private schools. The capitol, the handsomest building in the state, stands upon an eminence overlooking the Mississippi River. The new government building is modern and architecturally beautiful.

The city has good railroad connections, but Baton Rouge is eminently a river city. All steamers plying between New Orleans and the upper river points land here regularly, and no physical hindrance exists to the coming to this point of the largest ocean steamships. In connection with the Agricultural and Mechanical College, here is the State Experiment Station. The State Penitentiary is located here. The city is well supplied with artesian water.

Lake Charles, the parish seat of Calcasieu parish, is the largest town in southwest Louisiana. It is situated upon the eastern shore of the lake of the same name, and is on the border line between the great rice fields of the prairies and the forests of long-leaved pine. Its balmy climate and good free schools, including a high school, make it attractive to home seekers from the Northwest. One trunk line runs through it, and two branch lines have termini here. These railroads, with the Calcasieu River, furnish good communication with markets.

Monroe is the parish seat of Ouachita parish, and the most important town in Louisiana north of Red River. It lies upon both banks of the Ouachita River, and has both railroad and water transportation. Good schools and good artesian water recommend Monroe.

Alexandria, the parish seat of Rapides parish, is one of the oldest as well as the most important of the towns in central Louisiana. It is on the right bank of Red River and at the boundary between the long-leaved pine forests and the cotton lands of the Red River alluvium. Its excellent shipping facilities include two trunk lines of railroad, two branch roads, and the river, which is always navigable. It has an abundant and wholesome supply of artesian water. Alexandria has good schools.

Natchitoches, the home of the Louisiana State Normal School, is one of the oldest towns in the state.

Jackson has Centenary College for boys, formerly a state school, and in its earlier history the best-known college in the Gulf states. The State Asylum for the Insane is located here.

Clinton is the seat of Silliman Collegiate Institute for Girls and of the Southern Military Academy for boys.

Ruston, the parish seat of Lincoln parish, is the home not only of the Louisiana Industrial Institute, but also of the Louisiana Chautauqua.

New Iberia is the largest and most progressive town upon the historic Bayou Teche. It has a good high school.

Calhoun, in Ouachita parish, is the location of the North Louisiana Experiment Station.

Bayou Sara, *Plaquemine*, and *Donaldsonville* are important Mississippi River towns; and *Opulensas*, in St. Landry parish, and *Hammoud*, in Tangipahoa parish, are progressive places. *Winnfield* is a promising town in west Louisiana. A school for girls is here. *Cornington*, in St. Tammany parish, is a health resort with mineral waters.

GEOGRAPHY OF ARKANSAS.

BY A. H. PURDUE, A. B.,

Professor of Geology in Arkansas State University, Fayetteville, Ark.

PHYSICAL FEATURES.

Location, Boundaries, and Area. The southern limit of the state of Arkansas is the parallel 33° N.; the northern limit, that of 36° 30' N. The longitude of the easternmost point is 89° 15' W.; of the westernmost point, 94° 40' W. Determine this from the map.

In what part of the state is the easternmost point? The westernmost point? By using the scale of miles, find the distance between these points. In the same way, find the extent of the state north and south.

Does the western border follow a meridian? What political divisions on the west? What state on the north? Does the Mississippi River form the whole eastern boundary? What states lie to the east? How is the southern boundary formed? What is the difference in longitude between the northeastern and southeastern corners of the state?

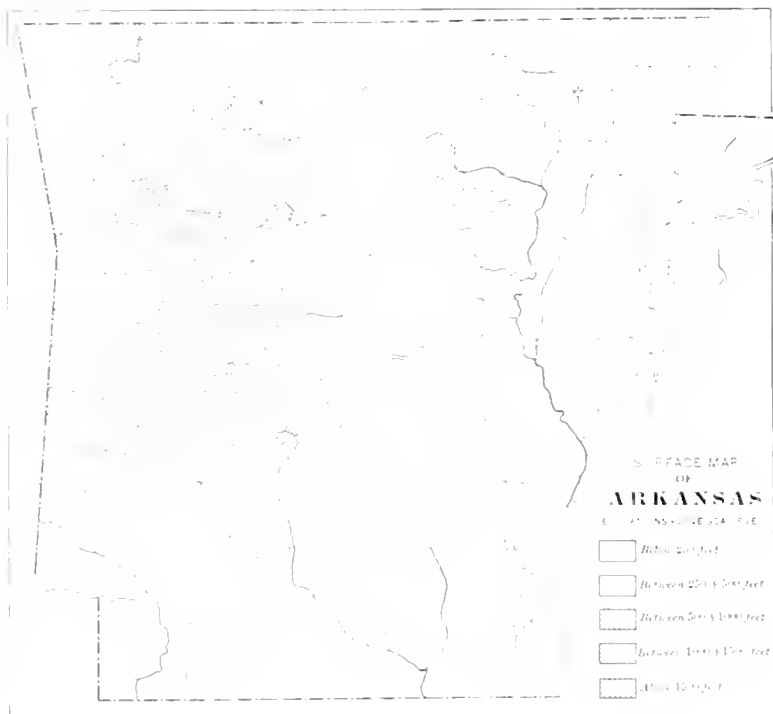
The distance between the north and south borders of the state is 238 miles; that from the easternmost to the westernmost point is 280 miles. The average width of the state from east to west is about 220 miles. The area, including the islands of the Mississippi River belonging to the state, is 53,850 square miles.

Compare the area of Arkansas with that of other states. How many states the size of Maryland would it take to equal Arkansas? How many states the size of Arkansas would it take to equal Texas? In area, what is the rank of Arkansas among the states of the Union?

Surface. The average elevation of Arkansas is about 650 feet above sea level. The surface is divided into two nearly equal parts — an eastern and southeastern low part, and a northwestern high part. The former is generally level or slightly undulating, with an average elevation of about 220 feet, in only a few places reaching the height of 300 feet above sea level.

The most marked surface feature within this area is Crowley's Ridge, which extends northward from the Mississippi River at Helena to the St. Francis River at St. Francis, and into Missouri. In Arkansas this ridge curves slightly to the west. It is from 1 to 14 miles wide, and in the highest part is about 400 feet above sea level, and 180 feet above the adjacent lowland. The cities of Helena, Marianna, Forrest City, Harrisburg, Jonesboro, and Paragould are situated on this ridge. This elevation is a remnant of a plateau which once extended westward to the highland, and has been removed by the rivers of the region.

The northwestern part of the state is largely highland, and is naturally divided by the Arkansas valley into two areas having distinctly different types of mountains.



The northern area forms the southern portion of the Ozark Mountains proper. This area has an average elevation of about 1300 feet above the level of the sea. This region represents the type of mountain in which the rock layers are practically horizontal. The highest and southern portion is known as the Boston Mountains.

The Boston Mountains form a plateau which extends westward into Indian Territory. The portion in Arkansas is about 150 miles long and 30 miles wide. It has an average elevation of about 1700 feet above the sea level, and gradually slopes southward. It is highest in the southeast part of Madison county. From this point eastward the northern slope is a bold, winding es-

carpment, standing in many places 1000 feet above the country at its base. The southern slope, while abrupt, is not so precipitous as the northern. The plateau is dissected by numerous rapid streams, which have cut deep canyons, the intervening hills being of nearly uniform height, and usually level-topped.

South of the Arkansas valley the highland region of the state is also a mountainous, rugged area, but very different in



Lumbering, Pine Bluff.



A Strawberry Field.

character from the northern region. It is composed of several series of parallel ranges running in the main a little north of east and south of west. These mountains belong to the great system that extends from the lowlands of the state westward into Indian Territory.

The southern portion of this area is occupied by the Ouachita Mountains, which are composed of several ranges, extending from near Little Rock south of west almost to the western border of the state, and have an average height of about 1500 feet above sea level.

The Ouachita Mountains are much surpassed in height by a series of ridges which lie between them and the Arkansas River. Magazine and other mountains in Logan county, and Mount Nebo, in Yell county, are remnants of a once continuous ridge which has been partly worn away by streams. Magazine Mountain is the highest point in the state, being 2823 feet above sea level. Low parallel ridges belonging to the system extend east of the Arkansas River to the lowland.

Locate Crowleys Ridge; Boston Mountains; Ouachita Mountains. Note the general trend of the mountains south of the Arkansas River.

What is the altitude of your home?

Drainage. In what general direction do the streams of Arkansas flow? To what river system do they belong? From the map determine into what large rivers the drainage of the state is collected. In the same way trace out the water divides between these rivers. Draw a stream map of the state showing the different river basins. Name the principal tributaries of each large river. Into what river does the Red River empty? The Ouachita?

The two divisions of the highland area form watersheds which determine the principal drainage basins of the state, and between them flows the Arkansas, the most important river. From the Boston Mountains the streams flow northward and eastward into White River, or southward and westward into the Arkansas. In the mountains north of the Ouachita Mountains, the main streams flow eastward along the narrow valleys and empty into the Arkansas River. The general direction for the drainage of the Ouachita Mountains is southeast. In many places the streams cut through the ridges, forming water gaps.

The streams of the highland region are swift, many of those in the Ouachita Mountains affording excellent water power; but in the lowland area, where the fall is slight, most of them are sluggish and subject to overflow.

All parts of the state are well supplied with excellent springs, many of which possess curative qualities, while others afford the best of water for domestic purposes. Especially are the springs numerous in the region north of the Boston Mountains, where some of them are gigantic.

Several of these springs are so large that they are used to drive mills, the most notable one being Mammoth Spring, in Fulton county, which furnishes power to run a cotton mill.

Along the Mississippi, and throughout the lowland area, frequent changes in the winding streams have formed numerous lagoons, or oxbow lakes. In the northeastern part of the state are several shallow lakes in what are known as the "sunk lands." This region was sunk by an earthquake in 1841.

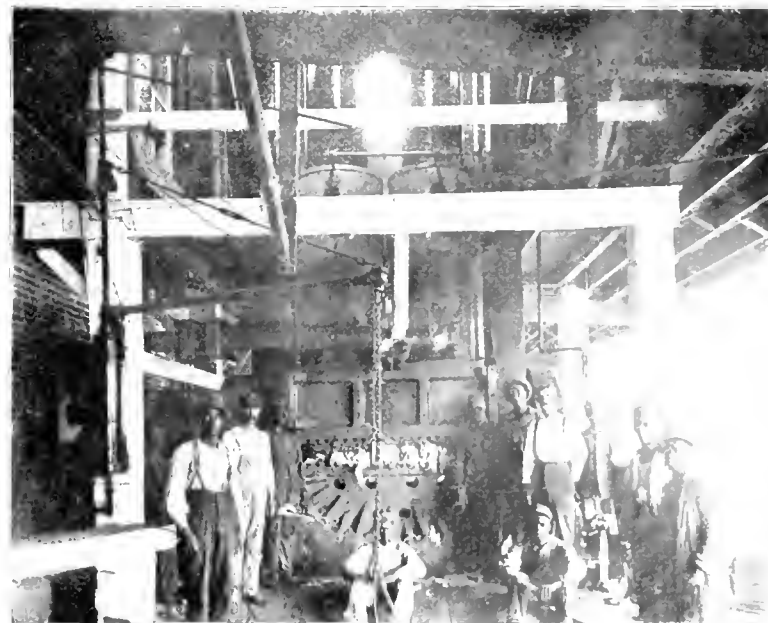
Climate and Soil. The difference in latitude between the northern and southern parts of the state is in itself sufficient to make an appreciable difference in the temperature of the two sections. To this must be added the variations resulting from the high elevations of the northern and central parts. The winters of the entire state are mild, but while the summers are pleasant in the highland portion, they are warm in the lowlands.

The mean annual temperature for the state is about 63° F.; that of the northern part, 58°; of the southern part, 65°. The winter temperature seldom falls below zero in any part of the state, and 112° is about the maximum summer temperature for any part. The yearly rainfall is about 42 inches. The winds are variable, those from the south, south-east, and southwest prevailing.

In the highland region most of the soil is residuary, but in the lowland area a great portion of it is transported. Within the state are found extensive beds of limestone, sandstone, and shale, the decomposition of which has formed a great variety of soils. The overflows of the Mississippi and many other rivers in the lowlands have produced wide flood plains of alluvial soil of inexhaustible fertility.

Vegetation. Almost the entire state was formerly covered with timber, which in many parts was dense, and much of which is yet standing. Prairies are pretty well distributed over the state, but they are usually so small as not to occupy a large part of its area. The largest are in the east central part.

The timber of the highlands is chiefly oak, but hickory, walnut, ash, pine, and maple also occur. In the lowlands pine is most abundant, but



A Cotton Compress.



University of Arkansas, Fayetteville.



A Street in Little Rock.

among other common trees here are the oak, gum, hickory, pecan, walnut, cypress, cottonwood, magnolia, lolly, and ironwood. Dense canebrakes occur along the flood plains.

Physical History. In the geological sense, the highland part of Arkansas is very old, while the lowlands are very young, belonging to what is known as the Tertiary period. As geological time is measured, the lowlands were recently covered by the waters of the Gulf of Mexico, which at the same time covered parts of Tennessee and of all the Gulf states. After standing for a very long time over the region, the water receded, leaving the land dry. Though it is very much younger than the highland region, yet many thousand years have elapsed since it was beneath the water.

The rocks of the north central part of the state and those of the Ouachita Mountains are very old, belonging to what is known as the Silurian period. All the other rocks of the highland area are younger than the Silurian and belong to the Carboniferous period, except some in the southern part of it, which are younger than the Carboniferous and belong to the Cretaceous period.

RESOURCES AND INDUSTRIES.

Agriculture. The diversity of the soil and climate in Arkansas supplies the conditions for a variety of agricultural products. Cotton, the principal crop, is cultivated to some extent in the highlands, but chiefly on the flood plains of the lowlands. The entire state is well adapted to corn, hay, oats, sweet potatoes, sorghum, tobacco, and cowpeas. In addition to these products, the lowlands produce sugar cane and peanuts; the highlands, wheat and buckwheat.

One of the chief industries of the state is fruit-growing, in which Arkansas is rapidly taking front rank. The apples produced in the northern part of the state are among the finest in the country. Peaches, plums, prunes, pears, cherries, strawberries, and apricots are produced in large quantities.

Large numbers of cattle, hogs, horses, and mules are annually reared. The northern part of the state is well adapted to sheep-raising.

Lumbering. The extensive forests of the state, with their great variety of timber, make lumbering one of the chief industries. While most of the lumber is shipped out of the state for manufacturing and building, a large amount is consumed at home. The hard wood of the state is rapidly coming into use for manufacturing.

Mining. Arkansas produces a variety of coal ranging from lignite, an impure form of bituminous coal, to semianthracite. Lignite is found in several places in the lowlands. Bituminous and semianthracite coal are mined in the valley of the Arkansas River, where the workable beds are of large extent.

Arkansas is one of the leading states in the production of manganese. The workable deposits occur in Independence county north of Batesville. Manganese occurs in small quantities also in Polk, Pike, Montgomery, Garland, and Hot Springs counties.

Deposits of iron ore are widely distributed over the state; but, being usually of low grade and distant from manufacturing centers, they cannot be worked with profit. Marble of excellent quality occurs widespread over the northern part of the state, and while the quarrying industry is at present undeveloped, it will probably be a source of great profit in the future. Chalk occurs in Little River, Hempstead, and Clark counties, and is manufactured into Portland cement at White Cliffs.

Bauxite, the chief source of aluminum, occurs in large quantities in Pulaski and Saline counties. Deposits of phosphate rock are extensive in the northern part of the state, but their value is not known. Ores of zinc and lead occur also in this section, but poor facilities for transportation have prevented the development of the mining industry.

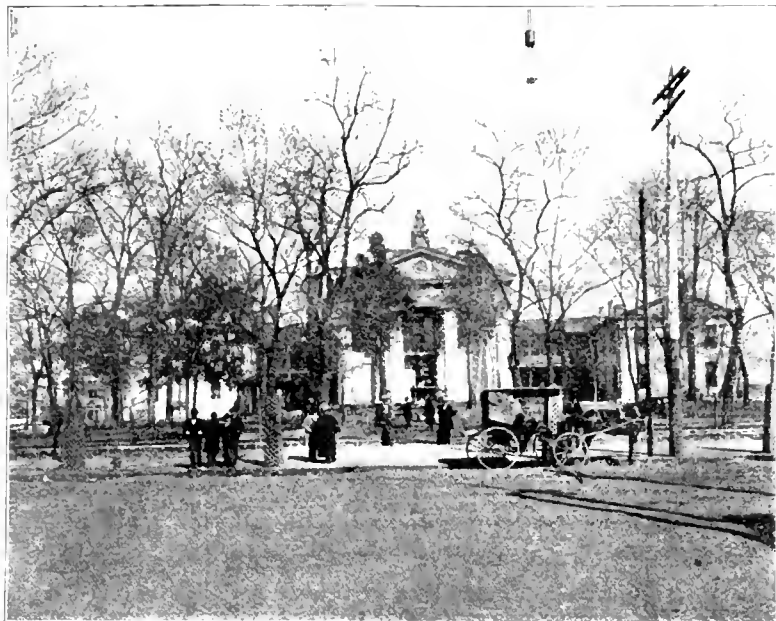
Antimony occurs in small quantities in Howard county, and gypsum in Pike county. Clay, suitable for the manufacture of coarse pottery, tile, and bricks, is widely distributed over the state. Novaculite is the common stone of the Ouachita Mountains, and from it are made the finest oilstones.

Manufacturing. While the manufacturing possibilities of Arkansas are very great, the industry is not yet well developed. There are several large cotton-seed oil mills in the cotton region. Furniture, flour, cotton goods, canned goods, and machinery are produced in small quantities.

HISTORY.

The state derives its name from a tribe of Indians known as the Arkansa, who lived near the mouth of the river which also bears their name at the time the region was first explored by white men. The first white men to enter the state were De Soto and his followers, in 1541. The earliest settlement was probably that made by the French, at Arkansas Post, in 1686.

The United States acquired its first right to the territory through the Louisiana Purchase in 1803, and its final right



State Capitol, Little Rock.

by treaties with the Osage and Quapaw Indians in 1818 and 1824. Arkansas was organized as a territory in 1819, and admitted to the Union as a state in 1836. At the opening of the civil war, after a controversy in which two conventions were necessary to decide the question, the state passed an ordinance of secession May 5, 1861. It was restored to its former relations with the Union in 1868.

Since the war the state has advanced rapidly in wealth and population. In 1870 the population was 484,471; in 1880 it was 802,525; in 1890 it had increased to 1,128,179.

Government. The present constitution of Arkansas was adopted in 1874.

The legislative department consists of a general assembly, which is composed of a senate and a house of representatives. The general assembly meets biennially.

The number of senators must be not less than 30 nor more than 35; and the number of representatives, not less than 73 nor more than 100. The senators are elected for four years, and the representatives for two years.

The executive department comprises a governor, secretary of state, auditor, and attorney-general. The constitution empowers the general assembly to provide for a commissioner of lands; a commissioner of mines, manufactures, and agriculture; a superintendent of public instruction; and a state geologist.

The judiciary department includes a supreme court, circuit courts, county and probate courts, and justices of the peace.

Education. The constitution requires that the state "shall establish and ever maintain a general, suitable, and efficient system of schools whereby all persons in the state between the ages of six and twenty-one years may receive gratuitous education."

The public schools are under the general supervision of the state superintendent of public instruction, and under the immediate local supervision of the district directors. Each county holds a normal school annually for one month, and has an examiner whose duty it is to examine and license teachers. There are over 6000 teachers in the state, and 300,000 pupils are enrolled in the schools. Most of the towns and all the cities have excellent high schools.

The University of Arkansas at Fayetteville stands at the head of the public educational system of the state, and ranks among the best educational institutions of the South. Courses are given in the sciences, classics, engineering, and agriculture. Tuition is free.

The Branch Normal at Pine Bluff is under the direct supervision of the University of Arkansas, and was established for the education of colored teachers.

The state also maintains a school for the blind, and one for deaf-mutes.

Besides the educational facilities offered by the state, there are excellent denominational colleges at Clarksville, Conway, Arkadelphia, Batesville, and Searey, and private schools in various places.

CITIES AND TOWNS.

Little Rock, the capital and leading city of the state, and also the county seat of Pulaski county, is situated on the south bank of the Arkansas River, and has excellent railroad facilities. The population is about 45,000. The State Medical School, Deaf-mute and Blind schools, Insane Asylum, and State Prison are located here. There are extensive manufacturing establishments, among which are cotton-seed oil mills, foundries, machine shops, and planing mills. Furniture is also manufactured.

Fort Smith, the second city of the state in size, has a population of about 20,000, is situated on the Arkansas River at the western border of the state, and is the county seat of Sebastian county. Its geographic location and excellent railroad facilities make it the center of distribution

for a large territory, and give it an extensive wholesale trade. It is the seat of the United States Court for the western district of Arkansas. The coal trade is extensive. Furniture, cotton-seed oil, canned goods, and brick and tile are manufactured. The public schools rank high, and the high school building is the finest public school structure in the state.

Pine Bluff, the county seat of Jefferson county, has large cotton-seed oil mills and an extensive lumber trade.

Hot Springs, the county seat of Garland county, is, on account of



Hot Springs.

it. *Fountain* springs, one of the great health resorts of the world. While warm water flows from the ground in a number of places, there are but seven springs in common use. The average temperature of these is 136° F., and the temperature of the hottest is 146.5° F. The amount of mineral matter they contain is really very small. This fact, however, does not detract from their curative value.

Helena, the county seat of Phillips county, is situated on the Mississippi River. It is an important shipping point. Lumber, boxes, and canned goods are manufactured. It has an excellent United States government building. The city is well supplied with artesian water.

Jonesboro, the county seat of Craighead county, is a thriving city with stave, box, and hard-wood factories and excellent railroad facilities.

Eureka Springs, in the northwestern part of the state, is widely known as a health resort. It is a railroad terminus, has an electric street railway, and is in the midst of picturesque scenery.

Fayetteville is the county seat of Washington county. It is an important shipping point for fruit, poultry, and hard wood, and is noted for its beautiful location and healthfulness.

Arkadelphia, county seat of Clark county; seat of Ouachita College and Arkadelphia Methodist College.

Bentonville, county seat of Benton county; one of the important points in the northwestern part of the state.

Camden, county seat of Ouachita county; excellent railroad facilities; cotton compress and wagon factory.

Batesville, county seat of Independence county; shipping point for building stone and manganese ore; seat of Arkansas College, location of I. O. O. F. Widows' and Orphans' Home.

Brinkley, in Monroe county; railroad center; manufactures large quantities of lumber and cotton-seed oil.

Clarksville, county seat of Johnson county, has one of the finest court-houses in the state; seat of Arkansas Cumberland College; important shipping point for fruit and lumber.

Conway, county seat of Faulkner county; seat of Hendrix College and Central Baptist College.

Harrison, county seat of Boone county; an enterprising city and an important business center.

Magnolia, county seat of Columbia county; important business center of southern Arkansas.

Newport, county seat of Jackson county; good railroad facilities and navigation on White River; large cotton compresses, sawmills, and stave factories.

Prescott, county seat of Nevada county; railroad facilities; saw-mills and planing mills.

There are many other important and growing places in the state.

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